



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**LIEBHERR LH30 115841-1253**  
Component  
**Swing Drive**  
Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0273456</b>	LH0235737	LH0207553
Sample Date		Client Info		<b>20 Jun 2024</b>	28 Sep 2023	22 Mar 2023
Machine Age	hrs	Client Info		<b>12685</b>	10707	9140
Oil Age	hrs	Client Info		<b>500</b>	0	2000
Filter Age	hrs	Client Info		<b>500</b>	0	2000
Oil Changed		Client Info		<b>Not Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>1450	<b>339</b>	80	97
Chromium	ppm	ASTM D5185m	>11	<b>4</b>	<1	<1
Nickel	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>4	<b>3</b>	<1	0
Lead	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>542	<b>35</b>	33	32
Tin	ppm	ASTM D5185m	>38	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

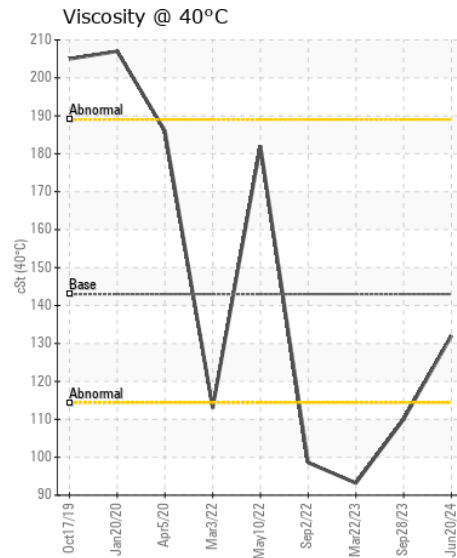
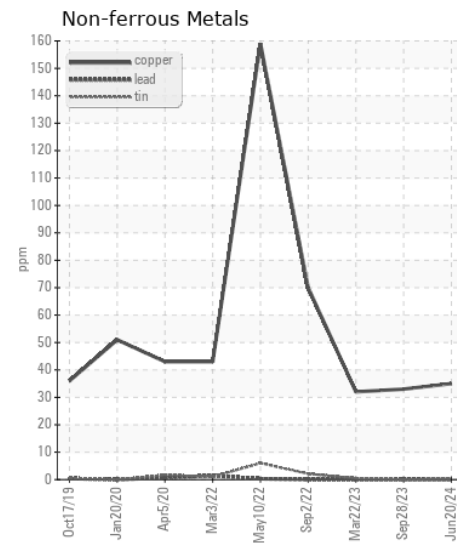
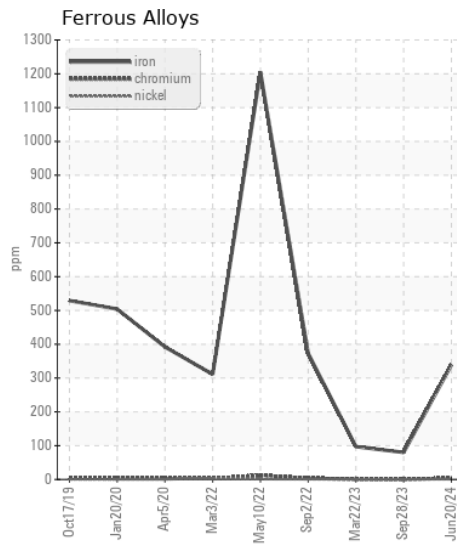
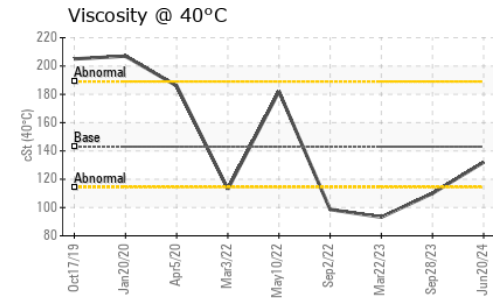
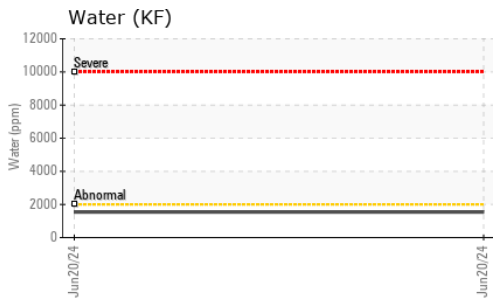
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>2</b>	5	11
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Water	%	ASTM D6304	>0.2	<b>0.154</b>	---	---
ppm Water	ppm	ASTM D6304	>2000	<b>1540</b>	---	---
Silt	scalar	*Visual	NONE	<b>MODER</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>0.2%</b>	NEG	NEG

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>170	<b>&lt;1</b>	0	<1
Boron	ppm	ASTM D5185m	400	<b>&lt;1</b>	0	2
Barium	ppm	ASTM D5185m	200	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	12	<b>&lt;1</b>	1	1
Manganese	ppm	ASTM D5185m		<b>2</b>	1	2
Magnesium	ppm	ASTM D5185m	12	<b>2</b>	16	10
Calcium	ppm	ASTM D5185m	150	<b>13</b>	160	101
Phosphorus	ppm	ASTM D5185m	1650	<b>280</b>	428	412
Zinc	ppm	ASTM D5185m	125	<b>22</b>	66	40
Sulfur	ppm	ASTM D5185m	22500	<b>13879</b>	14727	20609
Visc @ 40°C	cSt	ASTM D445	143	<b>132</b>	110	93.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0273456 **Received** : 27 Jun 2024  
**Lab Number** : 06222653 **Tested** : 28 Jun 2024  
**Unique Number** : 11100850 **Diagnosed** : 29 Jun 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: KF )

**SPARTAN RECYCLING**  
 3071 HOWARD ST  
 SPARTANBURG, SC  
 US 29303  
 Contact: SERVICE MANAGER

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:  
F: